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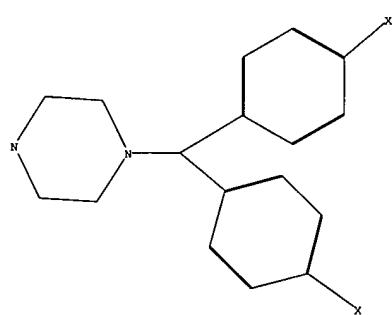
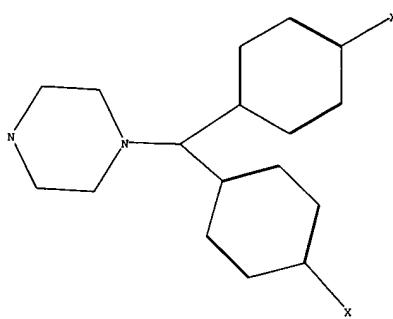
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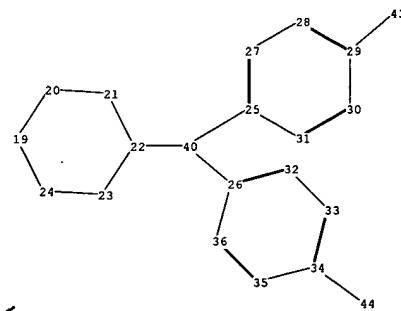
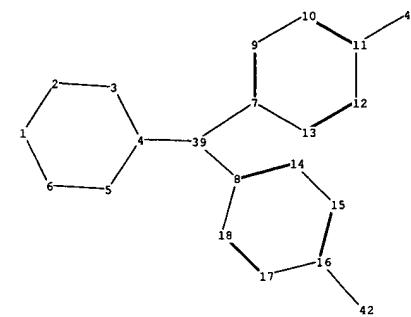
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7/22/02



~~Non
selected
Species~~



~~Species
(v)~~

chain nodes :
39 40 41 42 43 44

ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
26 27 28 29 30 31 32 33 34 35 36

chain bonds :
4-39 7-39 8-39 11-41 16-42 22-40 25-40 26-40 29-43 34-44
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-13 7-9 8-18 8-14 9-10 10-11 11-12 12-13 14-15
15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24 25-31 25-27 26-36 26-32
27-28 28-29 29-30 30-31 32-33 33-34 34-35 35-36

exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 4-39 5-6 19-20 19-24 20-21 21-22 22-23 22-40 23-24

exact bonds :
7-39 8-39 11-41 16-42 25-40 26-40 29-43 34-44

normalized bonds :
7-13 7-9 8-18 8-14 9-10 10-11 11-12 12-13 14-15 15-16 16-17 17-18 25-31
25-27 26-36 26-32 27-28 28-29 29-30 30-31 32-33 33-34 34-35 35-36

isolated ring systems :
containing 7 : 25 :

G1:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom
22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom 31:Atom
32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 39:CLASS 40:CLASS 41:CLASS 42:CLASS
43:CLASS 44:CLASS

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YOU HAVE REQUESTED DATA FROM 4 ANSWERS - CONTINUE? Y/ (N) :Y

L10 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:411089 CAPLUS

DOCUMENT NUMBER: 136:167350

TITLE: Synthesis of

N,N'-di(3-aminodithiocarboxylic)propionyl piperazine

AUTHOR(S): Guo, Bao-guo; Zhang, Yong-xin; Liu, Ying

CORPORATE SOURCE: Dept. of Chem., Shangqiu Teachers College, Shangqiu, 476000, Peop. Rep. China

SOURCE: Shangqiu Shizhuan Xuebao (2001), 17(2), 89-92

CODEN: SSXUFU; ISSN: 1008-2662

PUBLISHER: Shangqiu Shizhuan Xuebao Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

OTHER SOURCE(S): CASREACT 136:167350

IT 396101-68-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP

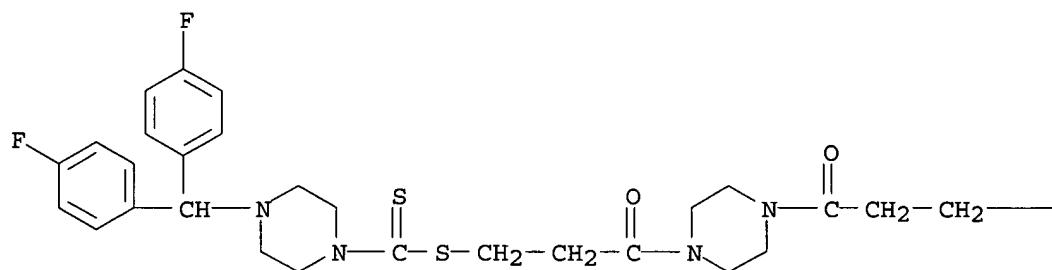
(Preparation)

(synthesis of N,N'-di(aminothiocarbonylthio)propionylpiperazines)

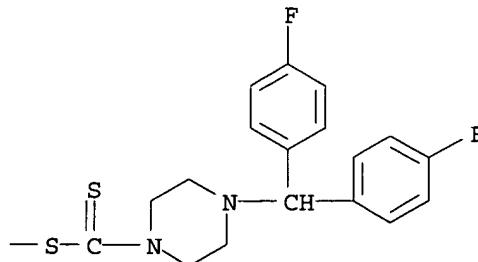
RN 396101-68-1 CAPLUS

CN 1-Piperazinecarbodithioic acid, 4-[bis(4-fluorophenyl)methyl]-, 1,4-piperazinediylbis(3-oxo-3,1-propanediyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



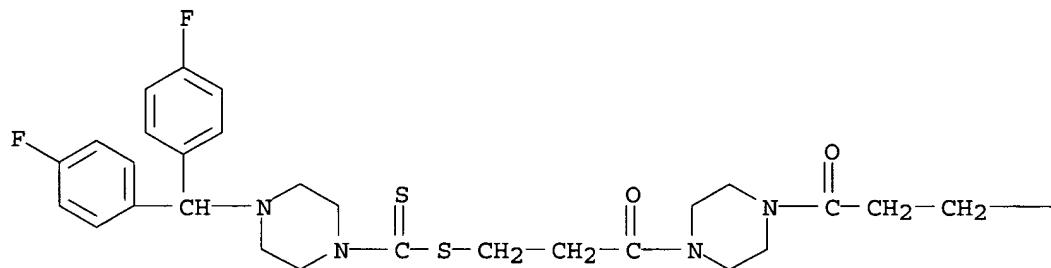
PAGE 1-B



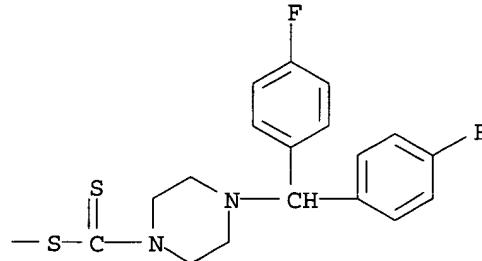
L10 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:368470 CAPLUS
 DOCUMENT NUMBER: 136:167349
 TITLE: Synthesis and anti-tumor activities of
 1,4-bis[3-(amino-
 dithiocarboxy)propionyl]piperazine derivatives
 AUTHOR(S): Guo, Baoguo; Ge, Zemei; Cheng, Tieming; Li, Runtao
 CORPORATE SOURCE: School of Pharmaceutical Sciences, Beijing
 University, Beijing, 100083, Peop. Rep. China
 SOURCE: Yaoxue Xuebao (2001), 36(3), 185-187
 CODEN: YHHPAL; ISSN: 0513-4870
 PUBLISHER: Yaoxue Xuebao Bianjibu
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 OTHER SOURCE(S): CASREACT 136:167349
 IT 396101-68-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis and anti-tumor activities of
 1,4-bis[3-(amino-dithiocarboxy)propionyl]piperazine derivs.)
 RN 396101-68-1 CAPLUS
 CN 1-Piperazinecarbodithioic acid, 4-[bis(4-fluorophenyl)methyl]-,
 1,4-piperazinediylbis(3-oxo-3,1-
 propanediyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

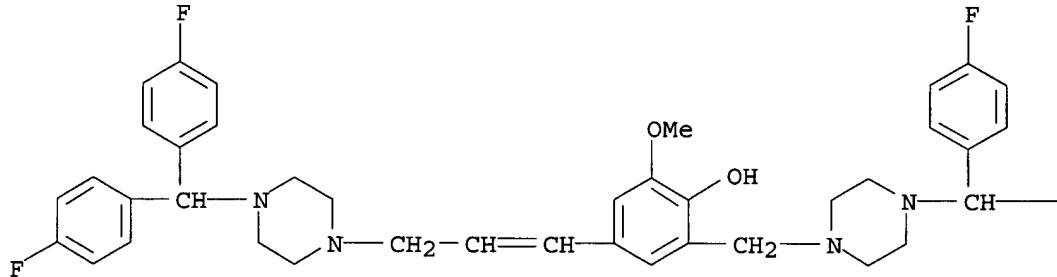


L10 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1988:492454 CAPLUS
 DOCUMENT NUMBER: 109:92454
 TITLE: Cinnamylamines useful as radical scavengers, etc., a
 process for their preparation,

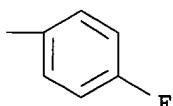
and pharmaceutical compositions containing them
 INVENTOR(S): Menta, Ernesto; Spinelli, Silvano; Gandolfi, Carmelo
 A.; Frigerio, Marco; Tofanetti, Odoardo; Tognella, Sergio
 PATENT ASSIGNEE(S): Boehringer Biochemia Robin S.p.A., Italy
 SOURCE: Eur. Pat. Appl., 19 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 266549	A1	19880511	EP 1987-114175	19870929
EP 266549	B1	19910619		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE AT 64589		E 19910715	AT 1987-114175	19870929
PRIORITY APPLN. INFO.:			IT 1986-21857	19860930
			EP 1987-114175	19870929
OTHER SOURCE(S):		MARPAT 109:92454		
IT 115688-65-8P 115688-66-9P 115688-76-1P				
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (prepn. of, as drug)				
RN 115688-65-8	CAPLUS			
CN Phenol,	2-[[4-[bis(4-fluorophenyl)methyl]-1-piperazinyl]methyl]-4-[3-[4-[bis(4-fluorophenyl)methyl]-1-piperazinyl]-1-propenyl]-6-methoxy- (9CI) (CA INDEX NAME)			

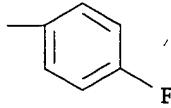
PAGE 1-A



PAGE 1-B



PAGE 1-B

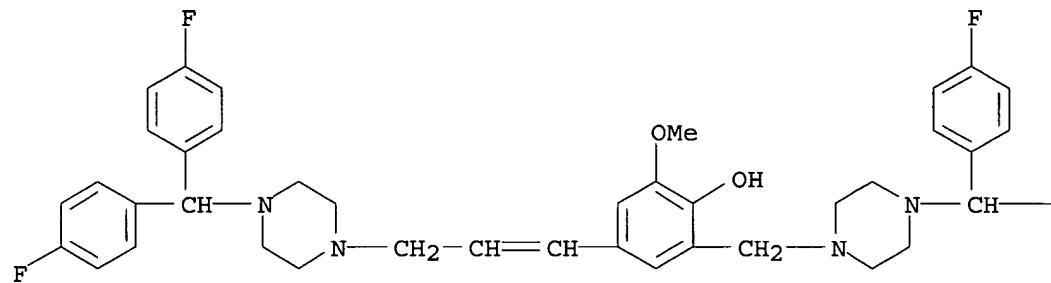


RN 115688-66-9 CAPLUS

CN Phenol,

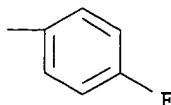
2-[[4-[bis(4-fluorophenyl)methyl]-1-piperazinyl]methyl]-4-[3-[4-[bis(4-fluorophenyl)methyl]-1-piperazinyl]-1-propenyl]-6-methoxy-, tetrahydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



● 4 HCl

PAGE 1-B



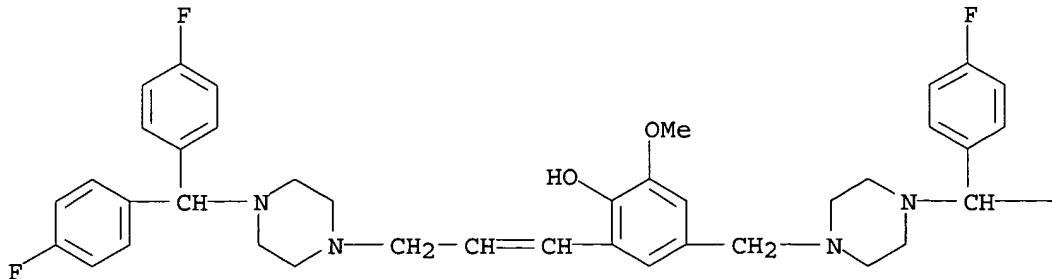
RN 115688-76-1 CAPLUS

CN Phenol,

4-[[4-[bis(4-fluorophenyl)methyl]-1-piperazinyl]methyl]-2-[3-[4-[bis(4-fluorophenyl)methyl]-1-

piperazinyl]-1-propenyl]-6-methoxy-, tetrahydrochloride (9CI) (CA INDEX
NAME)

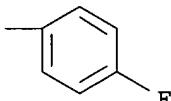
PAGE 1-A



•4 HCl

$m=1$

PAGE 1-B



χ_1 -bond
 χ_2 -alkene

χ_1 -bond
 χ_2 -subst. alkene
 χ_3 -alkene (CH_2)
 ~~χ_4 -bond~~

L10 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:78912 CAPLUS
DOCUMENT NUMBER: 102:78912
TITLE: Bis(piperazinyl- or -homopiperazinyl)alkanes
INVENTOR(S): Devlin, John P.; McNeil, Daniel W.; Keirns, James
J.; Barsumian, Edward L.
PATENT ASSIGNEE(S): Boehringer Ingelheim Ltd., USA
SOURCE: Eur. Pat. Appl., 53 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 122488	A1	19841024	EP 1984-102979	19840317
EP 122488	B1	19890607		
		R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE		
AT 43843	E	19890615	AT 1984-102979	19840317

FI 8401081	A	19840922	FI 1984-1081	19840319
FI 80269	B	19900131		
FI 80269	C	19900510		
DK 8401601	A	19840922	DK 1984-1601	19840320
DK 166022	B	19930301		
DK 166022	C	19930802		
NO 8401078	A	19840924	NO 1984-1078	19840320
NO 162907	B	19891127		
NO 162907	C	19900307		
AU 8425891	A1	19840927	AU 1984-25891	19840320
AU 568122	B2	19871217		
HU 34016	O	19850128	HU 1984-1102	19840320
HU 191599	B	19870330		
DD 219642	A5	19850313	DD 1984-261058	19840320
ES 530762	A1	19850616	ES 1984-530762	19840320
ZA 8402037	A	19851224	ZA 1984-2037	19840320
CA 1218652	A1	19870303	CA 1984-450025	19840320
PL 141127	B1	19870630	PL 1984-246774	19840320
IL 71291	A1	19871130	IL 1984-71291	19840320
CS 254971	B2	19880215	CS 1984-1960	19840320
JP 59176265	A2	19841005	JP 1984-54152	19840321
ES 535438	A1	19850916	ES 1984-535438	19840827
ES 535439	A1	19850916	ES 1984-535439	19840827
ES 535440	A1	19850916	ES 1984-535440	19840827
SU 1568887	A3	19900530	SU 1986-4027076	19860312
SU 1574174	A3	19900623	SU 1986-4027087	19860312
CS 254998	B2	19880215	CS 1986-5529	19860721
PRIORITY APPLN. INFO.:			US 1983-477008	19830321
			EP 1984-102979	19840317
			CS 1984-1960	19840320

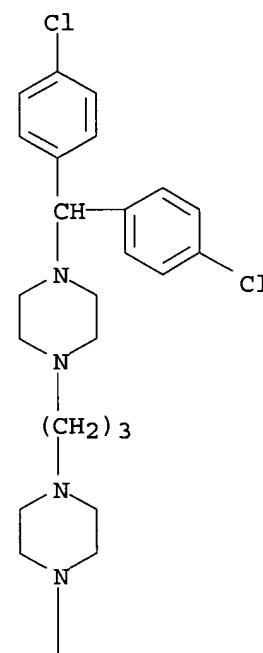
IT **94637-59-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as antiallergy-antiinflammatory agent)

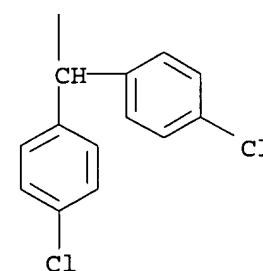
RN 94637-59-9 CAPLUS

CN Piperazine, 1,1'-(1,3-propanediyl)bis[4-[bis(4-chlorophenyl)methyl]-, dihydrochloride (9CI) (CA INDEX
NAME)

PAGE 1-A



PAGE 2-A



●2 HCl

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(FILE 'HOME' ENTERED AT 16:04:22 ON 22 JUL 2002)

FILE 'REGISTRY' ENTERED AT 16:04:38 ON 22 JUL 2002

FILE 'STNGUIDE' ENTERED AT 16:05:59 ON 22 JUL 2002

FILE 'REGISTRY' ENTERED AT 16:08:35 ON 22 JUL 2002

L1 STRUCTURE uploaded
L2 1 S L1
L3 5 S L1 FULL

L4 FILE 'CAPLUS, MEDLINE, USPATFULL' ENTERED AT 16:09:40 ON 22 JUL 2002
2 S L3

FILE 'REGISTRY' ENTERED AT 16:13:41 ON 22 JUL 2002
L5 STRUCTURE uploaded
L6 50 S L5
L7 STRUCTURE uploaded
L8 0 S L7
L9 0 S L7 FULL
L10 1742 S L5 FULL

FILE 'CAPLUS, MEDLINE, USPATFULL' ENTERED AT 16:17:35 ON 22 JUL 2002
L11 9970 S L10
L12 21 S L11 AND LINKER
L13 20 DUP REM L12 (1 DUPLICATE REMOVED)
L14 123 S L11 AND (BIS OR DIMER OR DIMERIC)
L15 17 S L11 AND (DIMER OR DIMERIC)
L16 22 S L11 AND (COVALENT? (3A) LINK?)

=>

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1992:194367 CAPLUS
 DOCUMENT NUMBER: 116:194367
 TITLE: Preparation of
 hydrocarbylenebis[(benzothiazepinonyloxy)carbonyl] derivatives as
 vasodilators
 INVENTOR(S): IdB Holding S.p.A.; Nizzola, Rita; Malandrino,
 Salvatore
 PATENT ASSIGNEE(S): IDB Holding S.p.A., Italy
 SOURCE: Eur. Pat. Appl., 9 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 467537	A2	19920122	EP 1991-305594	19910620
EP 467537	A3	19920219		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 5120730	A	19920609	US 1991-713788	19910612
CA 2044834	AA	19911222	CA 1991-2044834	19910618
PRIORITY APPLN. INFO.:			GB 1990-13878	19900621
OTHER SOURCE(S):	MARPAT 116:194367			

L4 ANSWER 2 OF 2 USPATFULL
 ACCESSION NUMBER: 92:47056 USPATFULL
 TITLE: Benzothiazepine esters, their preparation and
 formulations for therapeutic use
 INVENTOR(S): Pifferi, Giorgio, Milan, Italy
 Nizzola, Rita, Milan, Italy
 Malandrino, Salvatore, Milan, Italy
 PATENT ASSIGNEE(S): IdB Holding SpA, Milan, Italy (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5120730		19920609
APPLICATION INFO.:	US 1991-713788		19910612 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1990-13878	19900621
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Bond, Robert T.	
LEGAL REPRESENTATIVE:	Kirschstein, Ottinger, Israel & Schiffmiller	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
LINE COUNT:	360	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

=> d hitstr 1-
 YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/ (N) :y

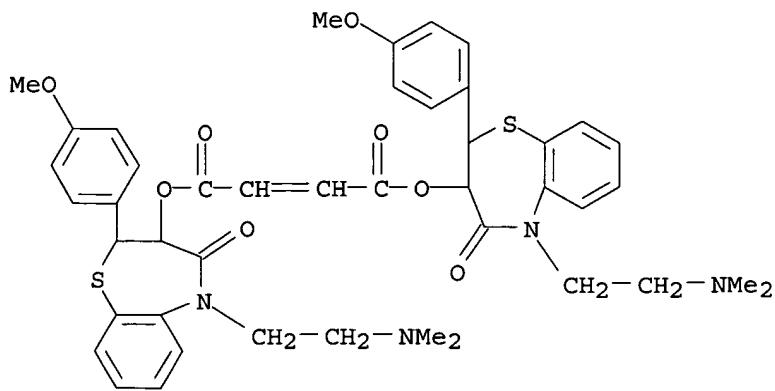
L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS
 IT 140382-43-0P 140382-44-1P 140382-45-2P 140461-00-3P
 140461-01-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, as vasodilator)

RN 140382-43-0 CAPLUS

CN 2-Butenedioic acid (2E)-,

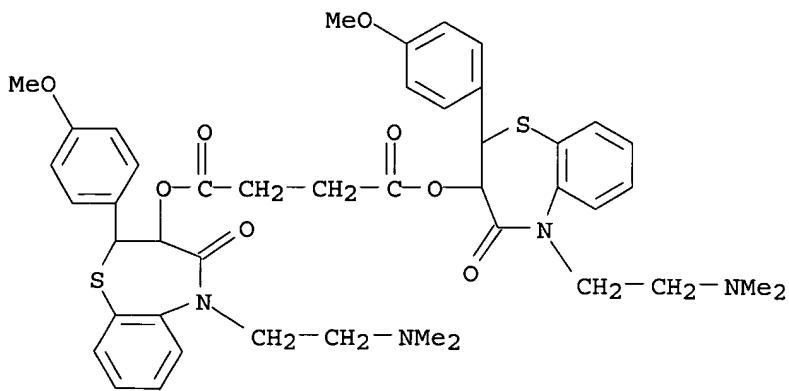
bis[(2R,3R)-5-[2-(dimethylamino)ethyl]-2,3,4,5-tetrahydro-2-(4-methoxyphenyl)-4-oxo-1,5-benzothiazepin-3-yl] ester, rel- (9CI) (CA INDEX NAME)



RN 140382-44-1 CAPLUS

CN Butanedioic acid,

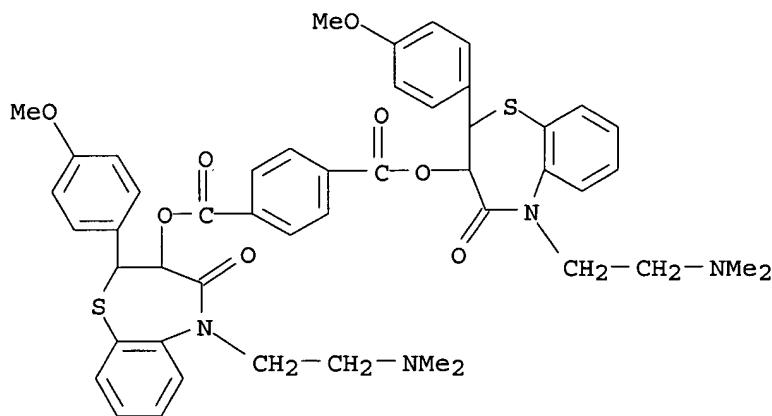
bis[5-[2-(dimethylamino)ethyl]-2,3,4,5-tetrahydro-2-(4-methoxyphenyl)-4-oxo-1,5-benzothiazepin-3-yl] ester, [2.alpha.,3.alpha.(2R*,3R*)]- (9CI) (CA INDEX NAME)



RN 140382-45-2 CAPLUS

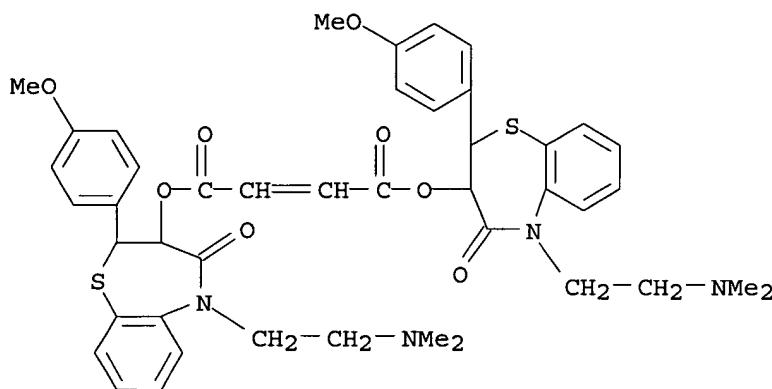
CN 1,4-Benzenediacrylic acid,

bis[5-[2-(dimethylamino)ethyl]-2,3,4,5-tetrahydro-2-(4-methoxyphenyl)-4-oxo-1,5-benzothiazepin-3-yl] ester, [2.alpha.,3.alpha.(2R*,3R*)]- (9CI) (CA INDEX NAME)



RN 140461-00-3 CAPLUS

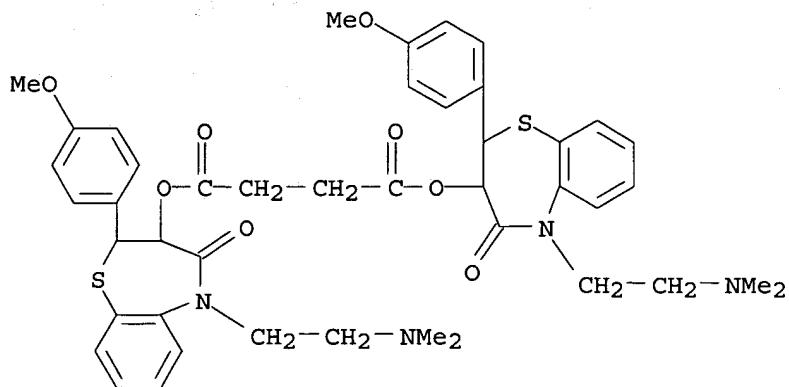
CN 2-Butenedioic acid (2E)-, bis[(2R,5R)-5-[2-(dimethylamino)ethyl]-2,3,4,5-tetrahydro-2-(4-methoxyphenyl)-4-oxo-1,5-benzothiazepin-3-yl] ester, dihydrochloride, rel- (9CI) (CA INDEX NAME)



●2 HCl

RN 140461-01-4 CAPLUS

CN Butanedioic acid, bis[5-[2-(dimethylamino)ethyl]-2,3,4,5-tetrahydro-2-(4-methoxyphenyl)-4-oxo-1,5-benzothiazepin-3-yl] ester, dihydrochloride, [2.alpha.,3.alpha.-(2R*,3R*)]- (9CI) (CA INDEX NAME)



●2 HCl

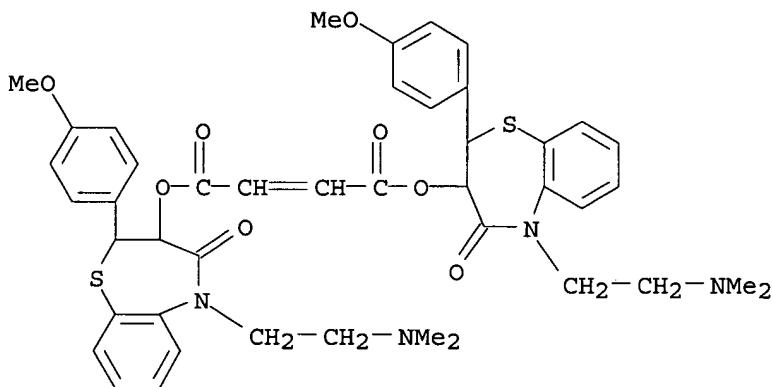
L4 ANSWER 2 OF 2 USPATFULL

IT 140382-43-0P 140382-44-1P 140382-45-2P 140461-00-3P
140461-01-4P

(prepn. of, as vasodilator)

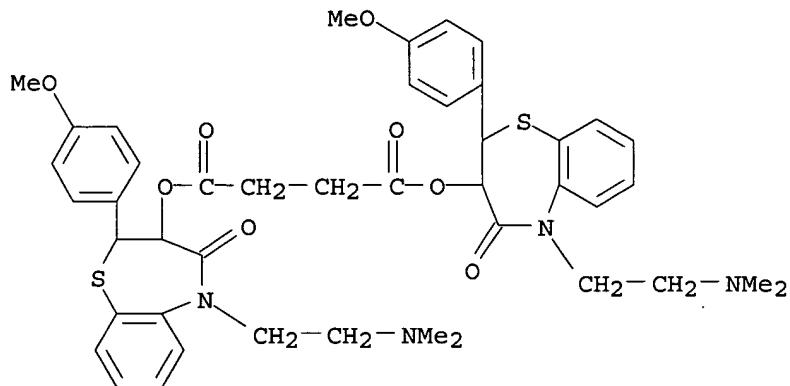
RN 140382-43-0 USPATFULL

CN 2-Butenedioic acid (2E)-,
bis[(2R,3R)-5-[2-(dimethylamino)ethyl]-2,3,4,5-tetrahydro-2-(4-methoxyphenyl)-
4-oxo-1,5-benzothiazepin-3-yl] ester, rel- (9CI) (CA INDEX NAME)



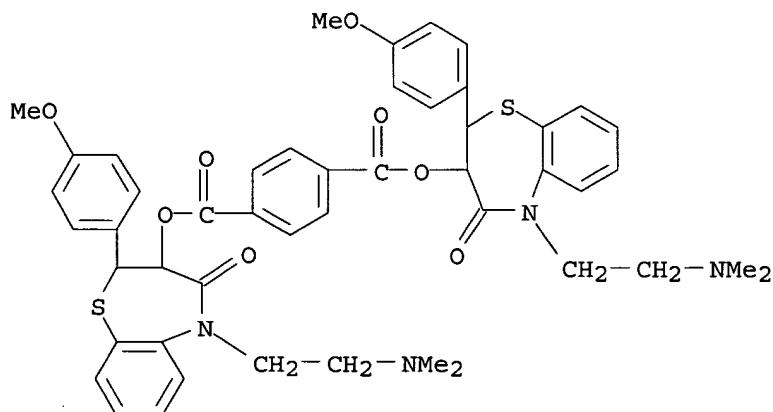
RN 140382-44-1 USPATFULL

CN Butanedioic acid,
bis[5-[2-(dimethylamino)ethyl]-2,3,4,5-tetrahydro-2-(4-methoxyphenyl)-4-oxo-1,
5-
benzothiazepin-3-yl] ester, [2.alpha.,3.alpha.-(2R*,3R*)]- (9CI) (CA
INDEX NAME)



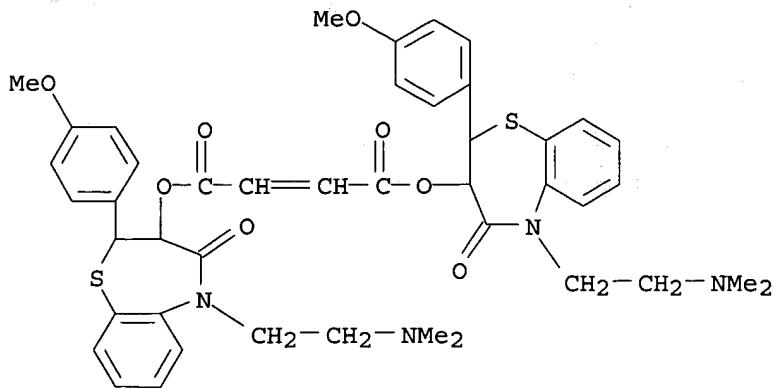
RN 140382-45-2 USPATFULL

CN 1,4-Benzeneddicarboxylic acid,
bis[5-[2-(dimethylamino)ethyl]-2,3,4,5-tetrahydro-2-(4-methoxyphenyl)-4-
oxo-1,5-benzothiazepin-3-yl] ester, [2.alpha.,3.alpha.(2R*,3R*)]-
(9CI) (CA INDEX NAME)



RN 140461-00-3 USPATFULL

CN 2-Butenedioic acid (2E)-,
bis[(2R,5R)-5-[2-(dimethylamino)ethyl]-2,3,4,5-tetrahydro-2-(4-methoxyphenyl)-
4-oxo-1,5-benzothiazepin-3-yl] ester, dihydrochloride, rel- (9CI) (CA
INDEX NAME)



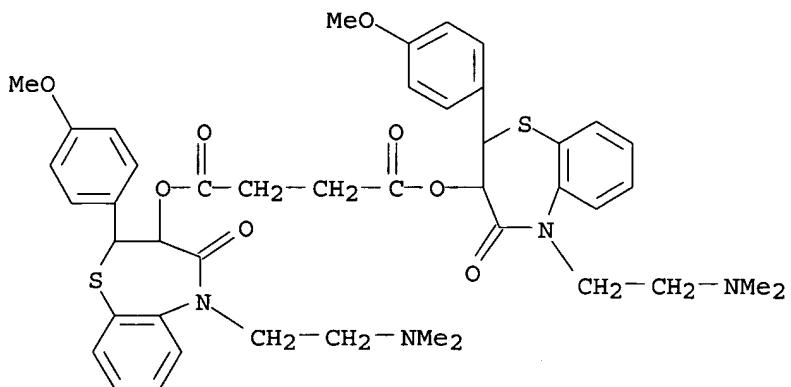
●2 HCl

RN 140461-01-4 USPATFULL

CN Butanedioic acid,

bis[5-[2-(dimethylamino)ethyl]-2,3,4,5-tetrahydro-2-(4-methoxyphenyl)-4-oxo-1,5-

benzothiazepin-3-yl] ester, dihydrochloride,
[2.alpha.,3.alpha.-(2R*,3R*)]- (9CI) (CA INDEX NAME)



●2 HCl

updated slack

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(FILE 'HOME' ENTERED AT 16:57:15 ON 22 JUL 2002)

* FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, SCISEARCH, USPATFULL' ENTERED AT
16:57:30 ON 22 JUL 2002

L1 856 S KNORR A?/AU
L2 106 S L1 AND DIHYDRO?
L3 73 S L1 AND DIHYDROPYRIDINE
L4 3 S L3 AND LINK?
L5 33 S L3 AND DIME?
L6 1 S L3 AND (DIMER OR DIMERIC)
L7 46382 S DILTIAZEM
L8 153 S L7 AND (DIMER OR DIMERIC)
L9 9 S L7 (P) (DIMER OR DIMERIC)
L10 4 DUP REM L9 (5 DUPLICATES REMOVED)
L11 309 S L7 (P) (DIVALENT OR BIVALENT OR LINKER)
L12 29 S L7 (P) (BIVALENT OR LINKER)
L13 8 DUP REM L12 (21 DUPLICATES REMOVED)
L14 322 S L7 (P) (BIS)

=> log y